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In [1]: import wbgapi as wb
        #USA and Canada
        country_codes = ["USA", "CAN"]
        #Indicators for GDP (Gross Domestic Product) and GNI per capita (Income per Capita)
        indicator_ids = ["NY.GDP.MKTP.CD", "NY.GNP.PCAP.CD"]
        #Fetching Indicators
        indicator_info = wb.series.info(indicator_ids)
        #Recent years data
        dataframe = wb.data.DataFrame(indicator_ids, country_codes, mrv=5)
        dataframe = dataframe.reset_index()
        #Melting the dataframe to a long format
        df_long = dataframe.melt(id_vars=['economy', 'series'], var_name='year', value_name='value')
        #Pivot Table
        df_plot = df_long.pivot_table(values='value', index=['year', 'economy'], columns='series')
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In [5]: import matplotlib.pyplot as plt
import seaborn as sns

# Assuming df_long is the DataFrame in Long format obtained from the previous
# Example: df_long = dataframe.melt(id_vars=['economy', 'series'], var_name='y

# Setting the style of the plot
sns.set(style="whitegrid")

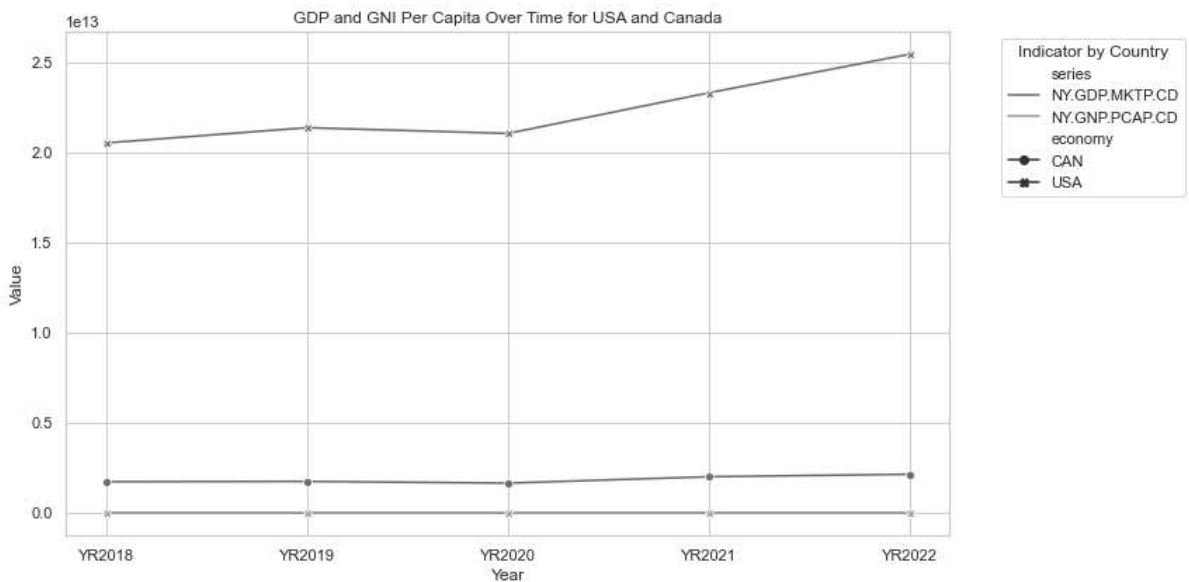
# Creating a line plot
plt.figure(figsize=(12, 6))
sns.lineplot(data=df_long, x='year', y='value', hue='series', style='economy',

# Adding plot title and labels
plt.title('GDP and GNI Per Capita Over Time for USA and Canada')
plt.xlabel('Year')
plt.ylabel('Value')

# Adding a Legend
plt.legend(title='Indicator by Country', bbox_to_anchor=(1.05, 1), loc='upper

# Show the plot
plt.tight_layout()
plt.show()

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In [6]: df_long['year'] = df_long['year'].astype(str)

# We pivot the data to have economies as columns and years as rows
df_pivot = df_long.pivot_table(values='value', index='year', columns=['economy

# Plotting
fig, ax = plt.subplots(figsize=(12, 8))

# We need to create a bottom series for the stack
bottom_usa = df_pivot[('USA', 'NY.GDP.MKTP.CD')]
bottom_can = df_pivot[('CAN', 'NY.GDP.MKTP.CD')]

# Plot for USA
df_pivot[('USA', 'NY.GDP.MKTP.CD')].plot(kind='bar', stacked=True, color='blue
df_pivot[('USA', 'NY.GNP.PCAP.CD')].plot(kind='bar', stacked=True, bottom=bott

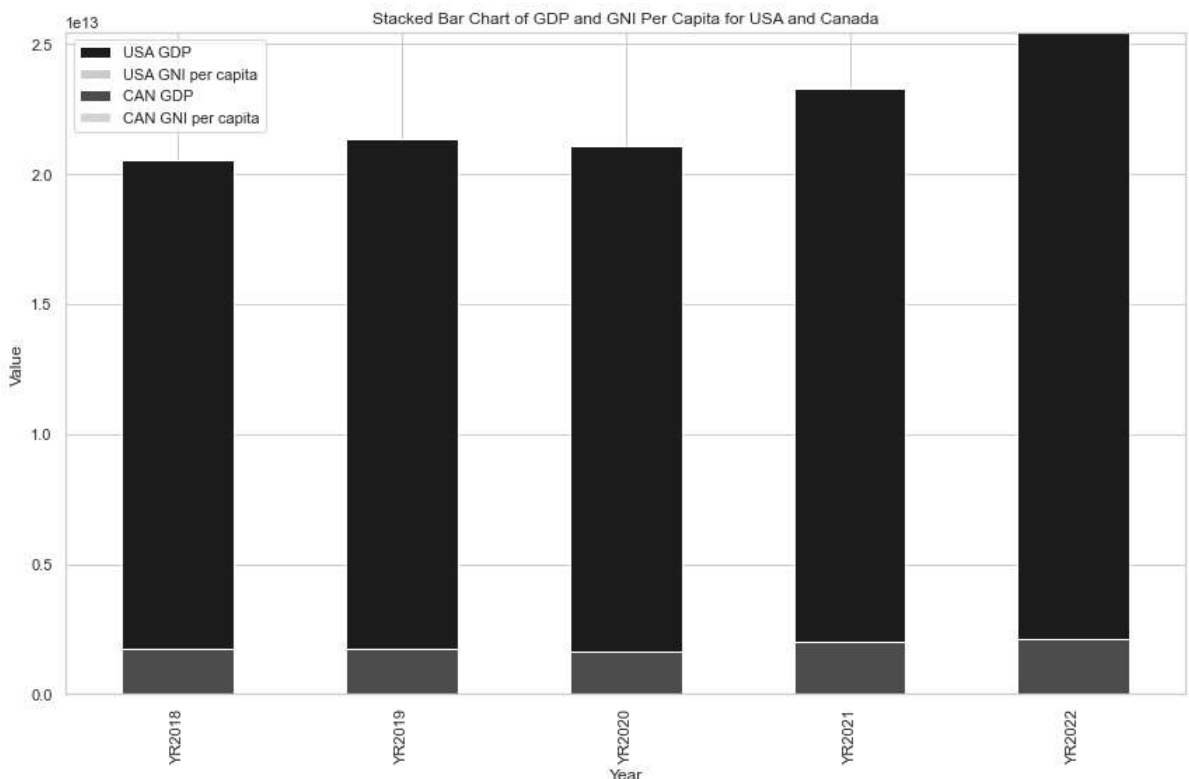
# Plot for Canada
df_pivot[('CAN', 'NY.GDP.MKTP.CD')].plot(kind='bar', stacked=True, color='red'
df_pivot[('CAN', 'NY.GNP.PCAP.CD')].plot(kind='bar', stacked=True, bottom=bott

# Adding titles and labels
ax.set_title('Stacked Bar Chart of GDP and GNI Per Capita for USA and Canada')
ax.set_xlabel('Year')
ax.set_ylabel('Value')

# Display the Legend
ax.legend()

# Show the plot
plt.tight_layout()
plt.show()

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In [7]: df_long['year'] = df_long['year'].astype(str)

# Pivot the data to get separate columns for each series for each country
df_pivot = df_long.pivot_table(values='value', index='year', columns=['economy

# Prepare the data for the area plot
years = df_pivot.index
usa_gdp = df_pivot[('USA', 'NY.GDP.MKTP.CD')]
can_gdp = df_pivot[('CAN', 'NY.GDP.MKTP.CD')]
usa_gni = df_pivot[('USA', 'NY.GNP.PCAP.CD')]
can_gni = df_pivot[('CAN', 'NY.GNP.PCAP.CD')]

# Plotting
fig, ax = plt.subplots(figsize=(12, 8))

# Creating the area plot
ax.stackplot(years, usa_gdp, can_gdp, usa_gni, can_gni, labels=['USA GDP', 'CA
              colors=['skyblue', 'lightcoral', 'dodgerblue', 'red'])

# Adding titles and labels
ax.set_title('Area Plot of GDP and GNI Per Capita for USA and Canada')
ax.set_xlabel('Year')
ax.set_ylabel('Value')

# Display the Legend
ax.legend(loc='upper left')

# Show the plot
plt.tight_layout()
plt.show()

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